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**EFFECTS OF INSTRUCTIONAL APPROACHES, ATTITUDE, AND  
GENDER ON FINANCIAL ACCOUNTING ACHIEVEMENT AMONG  
SECONDARY SCHOOL STUDENTS IN NIGERIA**

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**UUM**  
Universiti Utara Malaysia

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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SECONDARY SCHOOL STUDENTS IN NIGERIA**

**BY  
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**UUM**  
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**TUNKU PUTERI INTAN SAFINAZ  
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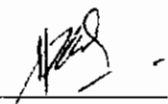
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## Abstract

The financial accounting achievement of secondary school students in Nigeria over the years has persistently remained not encouraging, especially in their national examination. This is due to the persistent use of the conventional teaching approach. Several studies in other subject areas have documented that effective instructional approaches have significantly improved students' achievement. However, arguments exist in the literature that knowing students' attitude towards a subject could help the teacher to use appropriate instructional approaches to address the students' learning problems. Therefore, this study extended the work of previous studies by examining the effects of instructional approaches, attitude, and gender on financial accounting achievement among secondary school students in Nigeria. An explanatory sequential mixed-method design was adopted where a cluster sampling technique was used in the study. The quantitative data were collected from 240 students, while twelve students participated in the interview. The data collected were statistically treated using ANCOVA, multiple regression, and t-test, while NVivo was used in analysing the qualitative data. The results revealed that cooperative instructional approach is the most effective approach for teaching financial accounting to secondary school students compared to the demonstration, guided discovery, and conventional approaches. Students' attitude towards financial accounting also has a significant influence on their financial accounting achievement, whereas students' gender difference has no influence on their financial accounting achievement. By implications, the findings of the present study suggest that the government should encourage curriculum planners and financial accounting teachers of secondary schools to adopt the cooperative instructional approach as an instructional approach for teaching financial accounting in secondary schools to improve their students' achievement in the subject. Furthermore, financial accounting students should be motivated, especially by their teachers to develop a more positive attitude towards financial accounting. This will also help in improving their achievement in the subject.

**Keywords:** financial accounting achievement, secondary school students, instructional approach, attitude, gender

## Abstrak

Selama bertahun-tahun pencapaian perakaunan kewangan pelajar sekolah menengah di Nigeria tidak memberangsangkan, terutamanya dalam peperiksaan kebangsaan kerana penggunaan pendekatan pengajaran konvensional yang sentiasa digunakan. Beberapa kajian mengenai bidang subjek lain telah mendokumenkan bahawa pendekatan pengajaran yang berkesan dapat meningkatkan kemajuan pelajar secara signifikan. Walau bagaimanapun, terdapat hujah dalam karya yang menunjukkan bahawa guru-guru yang mengetahui sikap pelajar terhadap subjek dapat membantu mereka menggunakan pendekatan pengajaran yang sesuai untuk menangani masalah pembelajaran pelajar. Oleh itu, kajian ini memperluaskan kajian terdahulu dengan meneliti kesan pendekatan pengajaran, sikap dan jantina terhadap pencapaian perakaunan kewangan dalam kalangan pelajar sekolah menengah di Nigeria. Reka bentuk kaedah berurutan bercampur digunakan yang melibatkan penggunaan teknik pensampelan kluster. Data kuantitatif dikumpulkan daripada 240 pelajar manakala 12 orang pelajar mengambil bahagian dalam temu duga. Data yang dikumpulkan dianalisis secara statistik dengan menggunakan ANCOVA, regresi berganda, dan ujian t manakala NVivo digunakan untuk menganalisis data kualitatif. Hasil kajian menunjukkan bahawa pendekatan pengajaran kerjasama adalah pendekatan yang paling berkesan untuk mengajar perakaunan kewangan kepada pelajar sekolah menengah berbanding pendekatan persembahan, penemuan berpandu, dan pendekatan konvensional. Sikap pelajar terhadap perakaunan kewangan juga mempunyai pengaruh yang signifikan terhadap pencapaian perakaunan kewangan mereka tetapi perbezaan jantina tidak mempunyai kesan yang signifikan. Secara implikasi, penemuan kajian ini menunjukkan bahawa kerajaan harus menggalakkan perancang kurikulum dan guru perakaunan kewangan sekolah menengah untuk mengamalkan pendekatan pengajaran kerjasama sebagai pendekatan pengajaran untuk mengajar perakaunan kewangan di sekolah menengah demi meningkatkan pencapaian pelajar mereka dalam subjek berkenaan. Selain itu, pelajar perakaunan kewangan harus dimotivasi terutama oleh guru mereka untuk mempunyai sikap yang lebih positif terhadap perakaunan kewangan bagi meningkatkan pencapaian mereka dalam subjek tersebut.

**Kata kunci:** pencapaian akauntansi kewangan, pelajar sekolah menengah, pendekatan pengajaran, sikap, jantina



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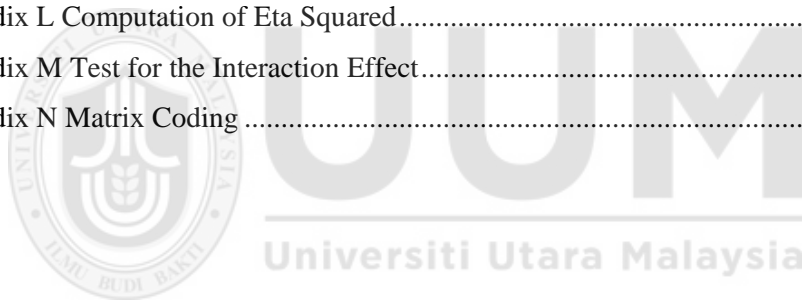


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## **List of Abbreviations**

ASQ	:	Attitude Scale Questionnaire
ANCOVA	:	Analysis of Covariance
CL	:	Cooperative Learning
DM	:	Demonstration Method
FA	:	Financial Accounting
FAAT	:	Financial Accounting Achievement Test
GD	:	Guided Discovery
NCE	:	Nigeria Certificate in Education
NECO	:	National Examination Council
NPE	:	National Policy on Education
SSCE	:	Senior School Certificate Examination
SSII	:	Senior Secondary School Level Two
STAD	:	Student Teams-Achievement Divisions
VIF	:	Variance Inflation Factor
WAEC	:	West African Examination Council

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

The education system in Nigeria is the collective responsibility of the federal, state, and local governments. The Federal Ministry of Education plays major roles in regulating the education system, such as the establishment of education policy and ensuring quality control. However, the federal government is more concerned with tertiary education. The state governments, on the other hand, maintain the secondary education while the local governments control the primary education. Hence, education sector in Nigeria is divided into three (3) subsectors, namely: basic education (nine years program), senior secondary school education (three years program), and tertiary education (four to seven years program, depending on the course of study). The tertiary education comprises of University and non-University education (Federal Republic of Nigeria, 2013).

The Federal Republic of Nigeria (2004) stated that the broad goal of senior secondary school education is to prepare the individual for useful living within the society and higher education. The curriculum designed for senior secondary school education is comprehensive and broad-based, aimed at broadening students' knowledge and outlook. The Subjects offered in senior secondary school are in three categories: (1) core subjects (e.g., English, Mathematics) which are compulsory for all students; (2) vocational subjects (e.g., Financial Accounting, Agricultural

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## Appendix A

### Summary of Prior Studies

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
1.	Cetin (2005)	Turkey			√		Quasi-experimental	Mathematics	√	
2.	Elmore (2005)	U.S.				√*	Survey	Statistics		√
3.	House (2005)	U.S.				√*	Longitudinal	Calculus		√
4.	Popham (2005)	Turkey				√*	Survey	Physics	√	
5.	Wachanga & Mwangi (2005)	Kenya	√*				Solomon's four-group	Chemistry	√	
6.	Aiken (2007)	Germany				√*	Survey	Mathematics		
7.	Ajewole (2006)	Nigeria			√*		Pretest posttest control group design	Biology	√	
8.	Nwagbo (2006)	Nigeria			√*		Quasi-experimental	Biology	√	
9.	McKee et al. (2007)	U.S.		√			Quasi-experimental	Chemistry		√
10.	Sola & Ojo (2007)	Nigeria		√			Pretest posttest control group design	Chemistry	√	
11.	Sutarso (2007)	U.S.				√*	Survey	Statistics		√
12.	Yamaric (2007)	U.S.	√*				Quasi-experimental	Economics		√
13.	Adeyemi (2008)	Nigeria	√*				Quasi-experimental	Social Studies	√	
14.	Aggul et al. (2008)	Turkey		√*			Quasi-experimental	Science	√	
15.	Arkaki & Schultz (2008)	U.S.				√*	Survey	Statistics		√
16.	Cheng & Chen (2008)	Taiwan	√*				Quasi-experimental	Accounting	√	
17.	Cohen (2008)	New York			√		Quasi-experimental	Science	√	
18.	Erdogan, Bayram & Deniz (2008)	Turkey				√*	Survey	Computer	√	

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
19.	Gabbin & Wood (2008)	U.S.	√				Quasi-experimental	Intermediate Accounting		√
20.	Adesoji & Ibraheem (2009)	Nigeria	√*				Pretest posttest control group design	Chemistry	√	
21.	Aiken (2009)	Germany				√*	Survey	Mathematics	√	
22.	Akinbobola & Afolabi (2009; 2010)	South Africa			√*		Pretest posttest control group design	Physics	√	
23.	Balı̇m (2009)	Turkey			√*		Quasi-experimental	Mathematics	√	
24.	Mamudu (2009)	Iran		√			Pretest posttest control group design	Science	√	
25.	Mickelson (2009)	Georgia				√		Sociology		√
26.	Roberts and Saxe (2009)	Georgia					Survey	Mathematics	√	
27.	Romero (2009)	U.S.	√*				Quasi-experimental	Science	√	
28.	Tanahoung et al. (2009)	Thailand		√*			Quasi-experimental	Physics		√
29.	Abdulhamid (2010)	Nigeria		√*			Pretest posttest control group design	Agric. Science	√	
30.	Adekoya & Olatoye (2010)	Nigeria		√*			Pretest posttest control group design	Agric. Science	√	
31.	Aziz & Hossain (2010)	Bangladesh	√*				Quasi-experimental	Mathematics	√	
32.	Eravwoke & Ajaja (2010)	Nigeria	√*				Pretest posttest control group design	Integrated Science	√	
33.	Ma and Kishor (2010)	Columbia				√*	Meta-Analysis	Mathematics	√	
34.	Maden (2010)	Turkey	√*					English	√	
35.	Muhammad (2010)	U.S.	√*				Pretest posttest control group design	Mathematics	√	
36.	Oghenevwede (2010)	Nigeria			√*		Quasi-experimental	Biology	√	
37.	Oloyede (2010)	Nigeria			√*		Quasi-experimental	Chemistry	√	
38.	Oludipe & Awokoy (2010)	Nigeria	√*				Quasi-experimental	Chemistry	√	

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
39.	Treadwell (2010)	Georgia			√*		Pretest posttest control group design	English	√	
40.	Udo (2010)	Nigeria			√*		Quasi-experimental	Chemistry	√	
41.	Udo (2010)	Nigeria		√			Quasi-experimental	Chemistry	√	
42.	Ugwuadu (2010)	Nigeria			√*		Pretest posttest control group design	Biology	√	
43.	Van Wyk (2010; 2013)	South Africa	√*				Quasi-experimental	Economics	√	√
44.	Wise (2010)	U.S.				√*	Survey	Statistics		√
45.	Zakaria & Chin (2010)	Malaysia	√*				Quasi-experimental	Mathematics	√	
46.	Alfieri, Brooks, Aldrich, & Tenenbaum (2011)	U.S.			√*		Meta-analyses	English	√	
47.	Gal and Ginsburg (2011)	U.S.				√*	Survey	Mathematics	√	
48.	Ibraheem (2011)	Nigeria	√*				Quasi-experimental	Chemistry	√	
49.	Jones (2011)	Georgia	√*				Quasi-experimental	English	√	
50.	Lavasani & Khandan (2011)	Iran	√*				Pretest posttest control group design	Mathematics	√	
51.	Lavasani et al. (2011)	Iran	√*				Pretest posttest control group design	Social Skill	√	
52.	Ma and Kishor (2011)	Columbia				√	Survey	Mathematics	√	
52.	Majoka et al. (2011)	Pakistan	√*				Quasi-experimental	Social Studies	√	
53.	Muraya & Kimamo (2011)	Kenya	√*				Solomon's four-group	Biology	√	
54.	Neale (2011)	U.S.				√*	Survey	Mathematics	√	
55.	Owen & Siakaluk (2011)	Columbia		√*			Quasi-experimental	Statistics		√
56.	Parveen et al. (2011)	Pakistan	√				Pretest posttest control group design	Social Studies	√	

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
57.	Pattanpichet (2011)	Bangkok	√*				Pretest posttest control group design	English		√
58.	Rahman et al. (2011)	Pakistan		√*			Quasi-experimental	Social studies	√	
59.	Udo & Etiubon ((2011)	Nigeria			√		Pretest posttest control group design	Chemistry	√	
60.	Van Wyk, (2011)	South Africa	√				Quasi-experimental	Economics		√
61.	Zaraa et al. (2011)	U.K.	√*				Quasi-experimental	Accounting		√
62.	Abdisa & Getinet (2012)	Ethiopia			√*		Quasi-experimental	Physics	√	
63.	Abdulrahman (2012)	Nigeria		√			Quasi-experimental	Electrical Electronics		√
64.	Akbiyik (2012)	Turkey		√			Quasi-experimental	Science		√
65.	Asodeh et al. (2012)	Iran	√*				Pretest posttest	Social Skill	√	
66.	Ebrahim (2012)	Kuwait	√*				Pretest posttest control group design	Social Skill	√	
67.	Ghorbani & Nezamosharie (2012)	Iran	√*				Quasi-experimental		√	
68.	Gokkurt et al. (2012)	Turkey	√*				Pretest posttest control group design	Mathematics	√	
69.	Hasan (2012)	Dubai			√*		Quasi-experimental	Biology	√	
70.	Hijazi & Al-Natour (2012)	Jordan	√*				Pretest posttest control group design	English	√	
71.	Jebson (2012)	Nigeria	√*				Quasi-experimental	Mathematics	√	
72.	Kazemi (2012)	Iran	√*				Quasi-experimental			√
73.	Mustafa (2012)	Turkey	√				Pretest posttest control group design	English	√	
74.	Olukayode (2012)	Nigeria			√		Quasi-experimental	Social studies	√	
75.	Reynolds & Walberg (2012)	U.S.				√*	Survey	Mathematics	√	

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
76.	Singaravelu (2012)	India			√*		Quasi-experimental	English	√	
77.	Tran & Lewis (2012)	Vietnam	√*				Quasi-experimental	Mathematics		√
78.	Torchia (2012)	Georgia	√*				Quasi-experimental	Mathematics	√	
79.	Parveen & Batool (2012)	Pakistan	√*				Pretest posttest control group design	General Science	√	
80.	Watkar (2012)	India		√*			Pretest posttest control group design	Science	√	
81.	Akanmu & Fajemidagba (2013)	Nigeria			√*		Quasi-experimental	Mathematics	√	
82.	Ali and Awan (2013)	Pakistan				√*	Survey	Chemistry	√	
83.	Auwal (2013)	Nigeria		√*			Quasi-experimental	Agric. Science	√	
84.	Awang, Jindal-Snape and Barber (2013)	Thailand				√*	Survey	Science	√	
85.	Azizinezhad et al. (2013)	Iran	√*					English		√
86.	Cagatay & Demircioglu (2013)	Turkey	√*				Quasi-experimental	Chemistry	√	
87.	Dabaghmanesh, Zamanian, & Bagheri (2013)	Iran	√*					English		√
88.	Ekeyi (2013)	South Africa		√*			Quasi-experimental	Agric. Science	√	
89.	Evcim & Ipek (2013)	Turkey	√*				Quasi-experimental	English	√	
90.	Gambari, Shittu & Taiwo (2013)	Nigeria	√*				Quasi-experimental	Mathematics	√	
91.	Goodnews (2013)	Nigeria		√			Quasi-experimental	Business Studies	√	
92.	Grech (2013)	Canada	√*				Quasi-experimental	Intermediate Accounting		√
93.	Hemanthakumar et al. (2013)	India		√*			Pretest posttest control group design	Science	√	
94.	Hendricks (2013)	U.S.			√*		Quasi-experimental	Mathematics	√	
95.	Hossain & Tarmizi (2013)	Bangladesh	√*				Quasi-experimental	Mathematics	√	

No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
96.	Ibe (2013)	Nigeria			√*		Quasi-experimental	Biology	√	
97.	Iline (2013)	Zimbabwe		√*			Quasi-experimental	English	√	
98.	Matthew & Kenneth (2013)	Nigeria			√*		Quasi-experimental	Mathematics	√	
99.	Mirasi, Osodo, and Kibirige, (2013)	Kenya			√*		Quasi-experimental	Biology	√	
100.	Nbina (2013)	Nigeria			√*		Quasi-experimental	Chemistry	√	
101.	Vlassi & Karaliota (2013)	Georgia			√*		Pretest posttest design	Chemistry	√	
102.	Salako et al. (2013)	Nigeria	√*				Quasi-experimental	Social Studies	√	
103.	Sanaee, Zarein & Roozbehi (2013)	Iran	√*					English		√
104.	Schultz and Koshino (2013)	US				√*	Survey	Statistics		√
105.	Srikote (2013)	Thailand	√*				Quasi-experimental	English		√
106.	Takallou & Veisi (2013)	Iran	√*				Quasi-experimental	English		√
107.	Tran (2013)	Australia	√*				Quasi-experimental	Mathematics	√	
108.	Uside, Barchok, & Abura (2013)	Kenya			√*		Solomon four group Design	Physics	√	
109.	Veloo & Chairhany (2013)	Indonesia	√*				Quasi-experimental	Mathematics	√	
110.	Adebayo and Judith (2014)	Zambia	√*				Quasi-experimental	Physics	√	
111.	Akanbi & Kolawole (2014)	South Africa			√		Quasi-experimental	Biology	√	
112.	Conway (2014)	U.S.			√*		Pretest posttest control group design	Biochemistry		√
113.	Dabaghmanesh & Soori (2014)	Iran	√*					English		√
114.	Fatokun & Eniayeju (2014)	Nigeria			√*		Pretest posttest control group design	Chemistry	√	
115.	Furo et al. (2014)	Nigeria		√			Quasi-experimental	Agric. Science		√
116.	Gambari & Yusuf (2014)	Nigeria	√*				Quasi-experimental	Physics	√	
117.	Koksal & Berberoglu (2014)	Turkey			√*		Quasi-experimental	Science	√	



No.	Study	Country	Instructional Approaches			Att.	Design	Subjects	Level	
			Coop.	Demons.	Disc.				Sec. <sup>a</sup>	Uni. <sup>b</sup>
118.	Marzban & Alinejad (2014)	Iran	√*				Pretest posttest control group design	English		√
119.	Motaei (2014)	Iran	√*				Quasi-experimental	English		√
120.	Narmadha (2013)	India				√*	Survey	Science		√
121.	Nwagbo & Okonkwo (2014)	Nigeria			√*		Quasi-experimental	Chemistry	√	
122.	Rambe and Sani (2014)	Indonesia			√*		Quasi-experimental	Physics	√	
123.	Shoulders et al. (2014)	U.S.		√			Quasi-experimental	Physics		√
124.	Srisumra et al. (2014)	Thailand	√*				Pretest posttest	English		√
125.	Tenaw (2014)	Ethiopia				√*	Survey	Chemistry	√	
126.	Yap & Chew (2014)	Singapore		√*			Pretest posttest control group design	Physics	√	
127.	Ahour & Mostafae (2015)	Iran			√*		Quasi-experimental	English		√
128.	Ajayi and Bamiro (2015)	Nigeria			√*		Quasi-experimental	Chemistry	√	
129.	Alabekee & Samuel (2015)	Nigeria	√*				Quasi-experimental	Mathematics		
130.	Bamiro (2015)	Nigeria			√*		Quasi-experimental	Chemistry	√	
131.	Gull & Shehzad (2015)	Pakistan	√*				Quasi-experimental	English	√	
132.	Musa, O. S. (2015)	Nigeria		√*			Quasi-experimental	Business studies	√	
133.	Sani (2015)	Nigeria	√*				Quasi-experimental	Chemistry	√	
134.	Okwute, O. (2015)	Nigeria			√*		Quasi-experimental	Mathematics	√	
135.	Unogu, B. (2015)	Nigeria			√*		Quasi-experimental	Business studies	√	

Note: \*Found to be significant to students' achievement. Coop - Cooperative, Demons - Demonstration, Disc - Discovery and Att - Attitude, <sup>a</sup> - Secondary school; <sup>b</sup> - University

All of these studies operationalised achievement using test/examination.

**Appendix B**  
**Financial Accounting Achievement Test I (FAAT I)**

Name of your school.....

Sex.....

**Instruction:** You are required to only circle the correct answer from the four (4) options given at the end of each question.

**Time Allowed:** 40 minutes

1. The balance of the sales account is transferred to the trading account by .....

- A. debiting the profit and loss account
- B. debiting the trading account
- C. debiting the sales account
- D. crediting the profit and loss account

2. When the provision is made for doubtful debt, the accounting entries are debit .....

- A. profit and loss account, credit debtors account
- B. debtors account, credit trading account
- C. profit and loss account, credit sales account
- D. profit and loss account, credit provision for doubtful debt account

3. Revenue is recognised in the profit and loss account as soon as .....

- A. debtors pays what is due from him
- B. sales of goods take place and money is received
- C. sales of goods take place whether or not money is received
- D. sales of fixed asset take place

*Use the following information extracted from Joy's book to answer questions 4 and 5:*

Stock at 1<sup>st</sup> January, 2010..... N6,500

Stock at 31<sup>st</sup> December, 2010.....N5,500

Creditors at 31<sup>st</sup> January, 2010.....N4,000

Creditors at 31<sup>st</sup> December, 2010 .....N5,000

Cash paid for goods during the year..... N20,000

Gross Profit 25% of cost

Administrative and selling expenses.....N2,750

4. The purchase for the year is .....

- A. N20,000
- B. N21,000
- C. N22,000
- D. N24,000

5. The gross profit for year is .....
- A. N6,625
  - B. N6,250
  - C. N6,000
  - D. N5,500
6. Carriage outwards is accounting term used for amount spent on .....
- A. goods purchased
  - B. goods sold
  - C. excess stock
  - D. goods returned to stock
7. The excess of cost of goods sold over sales is .....
- A. gross profit
  - B. gross loss
  - C. net profit
  - D. net loss

*Use the following information to answer questions 8 and 9:*

Rent prepaid 1/01/2004      N600

Rent paid 31/12/2014      N3,000

Rent prepaid 31/12/2014      N400

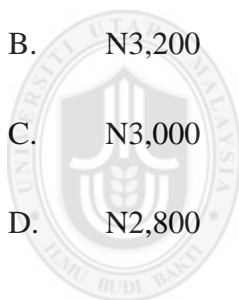
8.      The rent for 2014 chargeable to the profit and loss account is .....

A.      N4,000

B.      N3,200

C.      N3,000

D.      N2,800



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9.      The balance sheet as at 31<sup>st</sup> December, 2014 will show .....

A.      current assent of N600

B.      current assent of N400

C.      current assent of N1000

D.      current assent of N200

10.     Which of the following would result from an increase in the provision for doubtful debt?

A.      A decrease in gross profit

- B. A decrease in net profit
  - C. An increase in gross profit
  - D. An increase in net profit
11. In single entry and incomplete records, the net assets method used to ascertain profit is .....
- A. profit + additional – drawings
  - B. profit – additional – drawings
  - C. net profit at the end of the + additional capital – drawings
  - D. net profit at the end of a period + additional capital
12. Which of the following serves the same purpose as a balance sheet?
- A. Statement of profit and loss account
  - B. Statement of balance sheet
  - C. Statement of affairs
  - D. Statement of liabilities
13. The main feature of the single-entry system of account is the keeping of .....
- A. real account only
  - B. personal account only
  - C. assets account only

- D. cash account only
14. An approach for discovering missing figures in incomplete records is use of .....
- A. cash book
- B. control account
- C. trading account
- D. balance sheet
15. The following accounts are found in the single-entry system of accounting except .....
- A. statement of affairs at the beginning of the year
- B. statement of profit and loss
- C. trading profit and loss account
- D. statement of affairs at the end of the year
16. .... account is used for ascertaining the profit in a single-entry system of accounting.
- A. Statement of affairs
- B. Statement of profit and loss
- C. Balance sheet
- D. Trading profit and loss account

17. From the following information below, use the formula for converting single entry to double entry system of account to compute the value of sale.

Closing stock..... N2,000

Debtors at the end of the year.....N20,000

Debtors at the beginning of the year.....N10,000

Cash received from debtors .....N15,000

- A. N20,000
- B. N15,000
- C. N25,000
- D. N10,000
18. Incomplete record means .....
- A. completed entry
- B. no entry
- C. double entry
- D. single entry
19. Single entry is a term that is used for any system of accounting that .....
- A. does not conform with the double entry system of accounting
- B. conform with the double entry system of accounting
- C. does not conform with the three system of accounting
- D. conform with the three system of accounting



20. Under the capital fund, cash introduced into the business is ascertained by subtracting the current liabilities from the total .....
- A. fixed Assets
  - B. current Assets
  - C. assets
  - D. capital
21. Which of the following is not used to describe the total amount stated in the memorandum of association approved by the registrar of the companies?
- A. authorise capital
  - B. registered capital
  - C. issued capital
  - D. nominal capital
22. The double entries for refund of unsuccessful application monies are, debit:
- A. application account, credit bank account.
  - B. bank account, credit application account.
  - C. allotment account, credit application account.
  - D. allotment account, credit bank account.

23. When shareholders fails to pay the calls requested from him, this situation leads to .....
- A. forfeiture of share
  - B. bonus share
  - C. over subscription
  - D. right issue
24. Adex Company limited issued ordinary share at N1 each to the public at N1.20. The statement were issued at .....
- A. par
  - B. a discount
  - C. a profit
  - D. premium
25. The price at which shares are issued to subscribers is called .....
- A. nominal price
  - B. right price
  - C. conversion price
  - D. issued price



26. The amount of dividend which has been declared by the company's directors and approved at the annual general meeting is referred to as .....
- A. preference dividend
  - B. proposed dividend
  - C. total dividend
  - D. normal dividend

*Use the following information extracted from the book of Arewa limited to answer questions 27 to 29:*

BALANCE SHEET			
	N		N
Ordinary share capital	100,000	Plant & Machinery	60,000
2% preference share capital	60,000	Furniture	50,000
Reserve	20,000	Motor van	68,000
10% debenture	40,000	Stocks	14,000
Creditor	25,000	Debtors	36,000
Accrued rent	3,000	Bank	12,200
		Prepayments	7,800
	<u>248,000</u>		<u>248,000</u>

27. The working capital is .....

- A. N42,000
- B. N60,000
- C. N68,000
- D. N70,000

28. What is the ratio of debenture to equity?

- A. 1:1
- B. 2:1
- C. 5:2
- D. 3:1

29. What is the equity capital?

- A. N100,000
- B. N120,000
- C. N160,000
- D. N180,000

30. Which of the following attract a fixed rate dividend?

- A. Ordinary shares
- B. Debenture
- C. Preference share

D. Deferred share

31. Hire purchase contract is understood to be a situation where .....

A. a buyer is allowed the right to use an asset

B. a seller is allowed the right to use an asset

C. all businesses are allowed the right to use an asset

D. all bankers are allowed the right to use an asset

32. In the book of the buyer under hire purchase contract, assets account are debited and credit the ..... account with cost price of the goods.

A. buyer

B. vendor

C. bank

D. interest

33. The hire purchase contract may be prematurely terminated with the consent of the vendor where the hirer decides to .....

A. sell the goods

B. complete the purchase

C. pay the interest due

- D. received the money
34. Parties to a hire purchase contract are .....
- A. vendor, hirer, and the finance house
  - B. vendor, hirer, and the depositor
  - C. vendor, hirer, and the business
  - D. vendor, hirer, and the hiree
35. Which of the following satisfies the account treatment in the books of the hirer when deposit is paid to the vendor?
- A. Debit vendor account, credit bank account
  - B. Credit vendor account, debit bank account
  - C. Debit asset account, credit vendor account
  - D. Debit vendor account, credit interest account
36. In the books of the buyer under hire purchase contract, assets accounts are debited and credit the ..... account with cost price of the goods.
- A. buyer
  - B. bank
  - C. vendor
  - D. interest

37. In the book of the buyer, when an installment is due for payment, the interest accrued for the period is usually calculated, then debit the vendor account and credit the ..... account.
- A. buyer
  - B. seller
  - C. interest
  - D. capital
38. Hire purchase contract arises whenever a ..... is allowed the right to use the assets.
- A. seller
  - B. consumer
  - C. bank
  - D. buyer

*Use the following information to answer questions 39 to 40:*

Sugar and Bread Ltd. acquired two lorries on hire purchase on January 1, 2012. The total contract price is N14,400 of which N12,000 is the cost of the lorries and N2,400 is the finance charge.

39. The total asset account is .....
- A. N14,400
  - B. N16,800

C. N12,000

D. N9,600

40. The balance in the vendor account is .....

A. N9,600

B. N12,000

C. N14,400

D. N16,80



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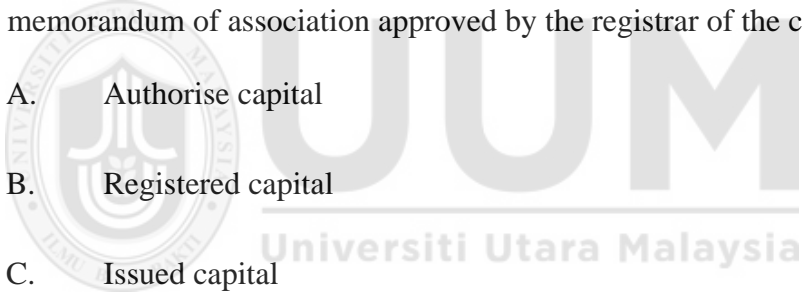
**Appendix C**  
**Financial Accounting Achievement Test II (FAAT II)**

Name of your school.....

Sex.....

**Instruction:** You are required to only circle the correct answer from the four (4) options given at the end of each question

**Time Allowed:** 40 minutes

1. Which of the following is not used to describe the total amount stated in the memorandum of association approved by the registrar of the companies?  

  - A. Authorise capital
  - B. Registered capital
  - C. Issued capital
  - D. Nominal capital
  
2. Hire purchase contract is understood to be a situation where .....
  - A. a buyer is allowed the right to use an asset
  - B. a seller is allowed the right to use an asset
  - C. all businesses are allowed the right to use an asset
  - D. all bankers are allowed the right to use an asset

3. In single entry and incomplete records, the net assets method used to ascertain profit is .....
- A. profit + additional – drawings
  - B. profit – additional – drawings
  - C. net profit at the end of the + additional capital – drawings
  - D. net profit at the end of a period + additional capital
4. The balance of the sales account is transferred to the trading account by .....
- A. debiting the profit and loss account
  - B. debiting the trading account
  - C. debiting the sales account
  - D. crediting the profit and loss account
5. The double entries for refund of unsuccessful application monies are, debit:
- A. application account, credit bank account.
  - B. bank account, credit application account.
  - C. allotment account, credit application account.
  - D. allotment account, credit bank account.
6. In the book of the buyer under hire purchase contract, assets account are debited and credit the ..... account with cost price of the goods.
- A. buyer

- B. vendor
  - C. bank
  - D. interest
7. Which of the following serves the same purpose as a balance sheet?
- A. Statement of profit and loss account
  - B. Statement of balance sheet
  - C. Statement of affairs
  - D. Statement of liabilities
8. When the provision is made for doubtful debt, the accounting entries are debit .....
- E. profit and loss account, credit debtors account
  - F. debtors account, credit trading account
  - G. profit and loss account, credit sales account
  - H. profit and loss account, credit provision for doubtful debt account
9. When shareholders fails to pay the calls requested from him, this situation leads to .....
- A. forfeiture of share
  - B. Bonus share
  - C. over subscription
  - D. right issue

10. The hire purchase contract may be prematurely terminated with the consent of the vendor where the hirer decides to .....
- A. sell the goods
  - B. complete the purchase
  - C. pay the interest due
  - D. received the money
11. The main feature of the single-entry system of account is the keeping of .....
- A. real account only
  - B. personal account only
  - C. assets account only
  - D. cash account only
12. Revenue is recognised in the profit and loss account as soon as a .....
- A. debtors pays what is due from him
  - B. sales of goods take place and money is received
  - C. sales of goods take place whether or not money is received
  - D. sales of fixed asset take place

13. Adex Company limited issued ordinary share at N1 each to the public at N1.20. The statement were issued at .....
- A. par
  - B. a discount
  - C. a profit
  - D. premium
14. Parties to a hire purchase contract are .....
- A. vendor, hirer, and the finance house
  - B. vendor, hirer, and the depositor
  - C. vendor, hirer, and the business
  - D. vendor, hirer, and the hiree
15. An approach for discovering missing figures in incomplete records is use of .....
- A. cash book
  - B. control account
  - C. trading account
  - D. balance sheet

Use the following information extracted from Joy books to answer the questions 16 to 17:

Stock at 1<sup>st</sup> January, 2010.....N6,500

Stock at 31<sup>st</sup> December, 2010.....N5,500

Creditors at 31<sup>st</sup> January, 2010.....N4,000

Creditors at 31<sup>st</sup> December, 2010 .....N5,000

Cash paid for goods during the year.....N20,000

Gross Profit 25% of cost

Administrative and selling expenses.....N2,750

16. The purchase for the year is .....

- A. N20,000
- B. N21,000
- C. N22,000
- D. N24,000

17. The gross profit for year is .....

- A. N6,625
- B. N6,250
- C. N6,000
- D. N5,500

18. The price at which shares are issued to subscribers is called .....
- A. nominal price
  - B. right price
  - C. conversion price
  - D. issued price
19. Which of the following satisfies the account treatment in the books of the hirer when deposit is paid to the vendor.
- A. Debit vendor account, credit bank account
  - B. Credit vendor account, Debit bank account
  - C. Debit asset account, credit vendor account
  - D. Debit vendor account, credit interest account
20. The following accounts are found in the single-entry system of accounting except .....
- A. statement of affairs at the beginning of the year
  - B. statement of profit and loss
  - C. trading profit and loss account
  - D. statement of affairs at the end of the year

21. The amount of dividend which has been declared by the company's directors and approved at the annual general meeting is referred to as .....
- A. preference dividend
  - B. proposed dividend
  - C. total dividend
  - D. normal dividend
22. In the books of the buyer under hire purchase contract, assets accounts are debited and credit the ..... account with cost price of the goods.
- A. buyer
  - B. bank
  - C. vendor
  - D. interest
23. .... account is used for ascertaining the profit in a single entry system of accounting
- A. statement of affairs
  - B. statement of profit and loss
  - C. balance sheet
  - D. trading profit and loss account





24. Carriage outwards is accounting term for amount spent on .....

- A. goods purchased
- B. goods sold
- C. excess stock
- D. goods returned to stock

*Use the following information extracted from the book of Arewa limited to answer questions 25 to 27:*

BALANCE SHEET			
	N		N
Ordinary share capital	100,000	Plant & Machinery	60,000
2% preference share capital	60,000	Furniture	50,000
Reserve	20,000	Motor van	68,000
10% debenture	40,000	Stocks	14,000
Creditor	25,000	Debtors	36,000
Accrued rent	3,000	Bank	12,200
		Prepayments	7,800
	<u>248,000</u>		<u>248,000</u>

25. The working capital is .....
- A. N42,000
  - B. N60,000
  - C. N68,000
  - D. N70,000
26. What is the ratio of debenture to equity?
- A. 1:1
  - B. 2:1
  - C. 5:2
  - D. 3:1
27. What is the equity capital?
- A. N100,000
  - B. N120,000
  - C. N160,000
  - D. N180,000
28. In the book of the buyer, when an installment is due for payment, the interest accrued for the period is usually calculated, then debit the vendor account and credit the ..... account
- A. buyer

- B. seller
- C. interest
- D. capital

29. From the following information below, use the formula for converting single entry to double entry system of account to compute the value of sale.

Closing stock..... N2,000

Debtors at the end of the year.....N20,000

Debtors at the beginning of the year.....N10,000

Cash received from debtors .....N15,000

- A. N20,000
- B. N15,000
- C. N25,000
- D. N10,000

30. The excess of cost of goods sold over sales is .....

- A. gross profit
- B. gross loss
- C. net profit
- D. net loss

31. Hire purchase contract arises whenever a ..... is allowed the right to use the assets
- A. seller
  - B. consumer
  - C. bank
  - D. buyer
32. Incomplete record means .....
- A. completed entry
  - B. no entry
  - C. double entry
  - D. single entry

*Use the following information to answer questions 33 and 34:*

Rent prepaid 1/01/2004	N600
Rent paid 31/12/2014	N3,000
Rent prepaid 31/12/2014	N400

33. The rent for 2014 chargeable to the profit and loss account is .....
- A. N4,000
  - B. N3,200
  - C. N3,000

D. N2,800

34. The balance sheet as at 31<sup>st</sup> December, 2014 will show .....

A. current asset of N600

B. current asset of N400

C. current asset of 1000

D. current asset of N200

35. Which of the following attract a fixed rate dividend?

A. Ordinary shares

B. Debenture

C. Preference share

D. Deferred share



*Use the following information to answer questions 35 to 36:*

Sugar and Bread Ltd. acquired two lorries on hire purchase on January 1, 2012. The total contract price is N14,400 of which N12,000 is the cost of the lorries and N2,400 is the finance charge.

36. The total asset account is .....

A. N14,400

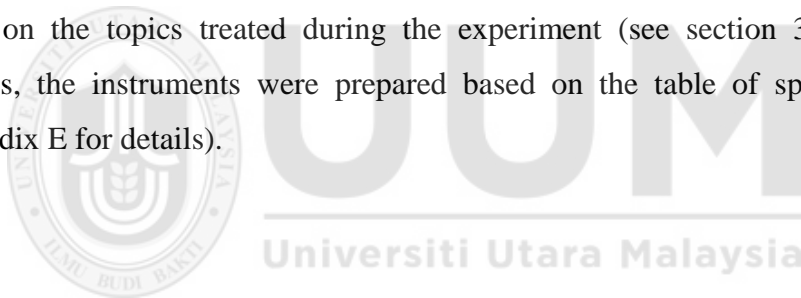
B. N16,800

- C. N12,000
- D. N9,600
37. The balance in the vendor account is .....
- A. N9,600
- B. N12,000
- C. N14,400
- D. N16,800
38. Single entry is a term that is used for any system of accounting that .....
- A. does not conform with the double entry system of accounting
- B. conform with the double entry system of accounting
- C. does not conform with the three systems of accounting
- D. conform with the three system of accounting
39. Which of the following would result from an increase in the provision for doubtful debt?
- A. a decrease in gross profit
- B. a decrease in net profit
- C. an increase in gross profit
- D. an increase in net profit

40. Under the capital fund, cash introduced into the business is ascertained by subtracting the current liabilities from the total .....
- A. fixed assets
  - B. current assets
  - C. assets
  - D. capital

*Note:*

The instruments (both financial accounting test I & II) were adopted from the West African Examination council (WAEC) passed examinations from 2010 to 2015 based on the topics treated during the experiment (see section 3.9 for details). Besides, the instruments were prepared based on the table of specification (see Appendix E for details).



## Appendix D

### Attitude Scale Questionnaire (ASQ)

**Instruction:** from each section, indicate your answer or option by ticking [ ✓ ] in the appropriate column.

<b>Section 1: Financial Accounting Confidence (FAC)</b>
---

**Options:** 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

S/N	ITEMS	1	2	3	4	5
1.	I am sure that I can learn financial accounting.					
2.	I don't think I could do advanced financial accounting.					
3.	Financial accounting is hard for me.					
4.	I am sure of myself when I do financial accounting.					
5.	I'm not the type to do well in financial accounting.					
6.	Financial accounting has been my worst subject.					
7.	I think I could handle more difficult in financial accounting.					
8.	Most subjects I can handle OK, but I just can't do a good job with financial accounting.					
9.	I can get good grades in financial accounting.					
10.	I know I can do well in financial accounting.					
11.	I am sure I could do advanced work in financial accounting.					



12	I'm no good in in financial accounting.					
----	---	--	--	--	--	--

## Section 2: Usefulness of Financial Accounting (UFA)

**Options: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree,**

S/N	ITEMS	1	2	3	4	5
1.	Knowing financial accounting will help me earn a living.					
2.	Financial accounting will not be important to me in my life's work.					
3.	I will need financial accounting for my future work.					
4.	I don't expect to use much financial accounting when I get out of school.					
5.	Financial accounting is a worthwhile, necessary subject.					
6.	Taking financial accounting is a waste of time.					
7.	I will need a good understanding of financial accounting for my future work.					
8.	Doing well in financial accounting is not important for my future.					
9.	Financial accounting is not important for my life.					
10.	I study financial accounting because I know how useful it is.					

11.	I will use financial accounting in many ways as an adult.					
12.	I see financial accounting as something I won't use very often when I get out of high school.					

### Section 3: Subject is Perceived as a Male Domain (PMD)

**Options: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree,**

S/N	ITEMS	1	2	3	4	5
1.	Males are not naturally better than females in financial accounting.					
2.	It's hard to believe a female could be a genius in financial accounting.					
3.	When a woman has to solve a financial accounting problem, she should ask a man for help.					
4.	Women can do just as well as men in financial accounting.					
5.	I would have more faith in the answer for a financial accounting problem solved by a man than a woman					
6.	Women who enjoy studying financial accounting are a little strange.					
7.	Females are as good as males in financial accounting.					

9.	Women certainly are smart enough to do well in financial accounting.					
10.	I would expect a woman accountant to be a forceful type of person.					
11.	Studying financial accounting is just as good for women as for men.					
12.	I would trust a female just as much as I would trust a male to solve important financial accounting problems.					

#### Section 4: Perception of Teacher's Attitudes (PTA)

**Options: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree,**

S/N	ITEMS	1	2	3	4	5
1.	My teachers have been interested in my progress in financial accounting.					
2.	Getting a teacher to take me seriously in financial accounting is a problem.					
3.	It's hard to get financial accounting teachers to respect me.					
4.	My teachers have encouraged me to study more financial accounting.					
5.	I have a hard time getting teachers to talk seriously with me about financial accounting.					
6.	My teachers think advanced financial accounting					

	will be a waste of time for me.					
7.	My teachers would not take me seriously if I told them I was interested in accounting career					
8.	My teachers think I'm the kind of person who could do well in financial accounting.					
9.	I would talk to my financial accounting teachers about a career which uses accounting.					
10.	Financial accounting teachers have made me feel I have the ability to go on in financial accounting.					
11.	I feel that financial accounting teachers ignore me when I try to talk about something serious.					
12.	My teachers want me to take all the financial accounting I can.					

*Note:* All the items were adapted from Fennema and Sherman (1976)

## Appendix E

### Table of Specification for the Research Instrument (Financial Accounting Achievement Test)

Contents/Topics	Period %	Cognitive Objective			Total
		Knowledge 25%	Comprehension 50%	Thinking 25%	
Final account	1 week (25%)	3	5	2	10
Single/Incomplete record	1 week (25%)	3	5	2	10
Account of limited liability company	1 weeks (25%)	3	5	2	10
Hire purchase	1 week (25%)	3	5	2	10
<b>Total</b>	<b>4 weeks (100%)</b>	<b>12</b>	<b>20</b>	<b>8</b>	<b>40</b>

*Source:* Ugodulunwa (2008)

*Note:*

Appendix E above shows that the weight of first topic (Final Account) is 25%, Second topic (Single/Incomplete Record) 25%, third topic (Account of Limited Liability Company) 25% and the last topic (Hire Purchase) also is 25%, which give a total of 100%. The weight of the topics is determined by the period covered in teaching the topics (see column 2 in the Appendix E). The weight for levels of objective are 25% for Knowledge, 50% for Comprehension, and 25% for thinking that is, the sum of the weight for application, analysis, synthesis and evaluation (Ugodulunwa, 2008). According him a teacher or researcher may also decide to group all the higher level of objective namely, application, analysis, synthesis, and evaluation as thinking skills for convenience.

Moreover, the topics for the treatment were taken from the approved syllabus of financial accounting for senior secondary school level two (SS II). The topics that were focused on in this study are; Final Account, Single/Incomplete Record, Account of Limited Liability Company, and Hire Purchase. They are the topics of the last four weeks (i.e., time of the present study) of the current semester/term (i.e., third semester/term) in which the study was conducted (WAEC, 2015).



## Appendix F

### Reliability Test

#### Main study

##### Scale: Achievement Test

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.711	2

##### Scale: Attitude

<b>Reliability Statistics</b>		
Cronbach's Alpha Based on Standardised Items		
Cronbach's Alpha	Standardised Items	N of Items
.704	.706	4

#### Pilot Study

##### Scale: Achievement Test

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.847	2

##### Scale: Attitude

<b>Reliability Statistics</b>		
Cronbach's Alpha Based on Standardised Items		
Cronbach's Alpha	Standardised Items	N of Items
.748	.749	4

## **Appendix G**

### **Lesson Plans**

#### **1. Sample of Lesson Plan for Cooperative Learning**

Subject : Financial Accounting

Topic : Final Account

Class : SSII

Duration : 40 Minutes

#### **Outline of Instructional Contents:**

**Introduction:** The teacher introduces his lesson by arousing the students' interest using the following questions:

- i Who is a sole trader?
- ii What is trading account?
- iii What is profit and loss account?
- iv What are the purpose of preparing final account for the owners of the business?

#### **Development of Stages:**

- i Definition of trading account
- ii Definition of profit and loss account



- iii Components of trading account
- iv Procedure for preparing trading, profit and loss account

**Behavioral Objectives:**

By the end of the lesson students should be able to:

- i Defined trading account
- ii Defined profit and loss account
- iii Identified the components of trading account
- iv Outlined the procedure for preparing trading, profit and loss account

**Entry Behavioral/Previous Knowledge:**

The students known who is a sole trader, and have little idea about the purpose of preparing final account.

**Teaching Method:** Cooperative

**Teaching Aids:** Graphical presentation of the format of trading, profit and loss account.

**Presentation:**

Step I	The teacher writes the topic for discussion on the chalkboard.
Step II	The teacher explains the meaning of trading, profit and loss account while the students are listen to the teacher's explanations, and the teacher asks some students to define trading, profit and loss account.
Step III	The teacher and mentions and explains the components and procedures for preparing trading, profit and loss account to the

students and the students are listen attentively to the teacher's explanations.

- Step IV                      The teacher gives a short illustration of trading, profit and loss account while the students are listening and observing the teacher's solutions.
- Step V                      The teacher asks the students to go to their respective learning group that is, four (4) students per group.
- Step VI                      The teacher shares the worksheet and the answer sheet to the groups.
- Step VII                      The teacher asks the students to work in group not individually to provide solutions of all questions on the worksheet.
- Step VIII                      The teacher go round the class and encourage the students to work as a group by sharing their ideas and giving their individual contributions in addressing the group's problem.
- Step IX                      After each group completed their task the teacher gives time to the groups to enable them to analyse how they have achieved their target and maintain the effective working relationship.
- Step X                      The teacher collects the answer sheets of each group.
- Step XI                      The teacher marks the answer sheets.
- Step XII                      The teacher concludes the class by providing feedback to each group.

## **2.        Sample of Lesson Plan for Demonstration Approach**

Subject                      :        Financial Accounting

Topic                        :        Final Account

Class : SSII

Duration : 40 Minutes

**Outline of Instructional Contents:**

Introduction: The teacher introduces his lesson by arousing the students' interest using the following questions:

- i Who is a sole trader?
- ii What is trading account?
- iii What is profit and loss account?
- iv What are the purpose of preparing final account for the owners of the business?

**Development of Stages:**

- i Definition of trading account
- ii Definition of profit and loss account
- iii Components of trading account
- iv Procedure for preparing trading, profit and loss account

**Behavioral Objectives:**

By the end of the lesson students should be able to:

- i Defined trading account
- ii Defined profit and loss account
- iii Identified the components of trading account
- iv Outlined the procedure for preparing trading, profit and loss account

**Entry Behavioral/Previous Knowledge:**

The students have little knowledge about the business of a sole trader and the purpose of preparing final account.

**Teaching Method:** Demonstration

**Teaching Aids:** Graphical presentation of the format of trading, profit and loss account.

**Presentation:**

Step I	The teacher writes the topic for discussion on the chalkboard.
Step II	The teacher explains the meaning of trading, profit and loss account with clear and simple example to the students and encourage students to ask questions.
Step III	The teacher explains clearly the procedures of preparing trading, profit and loss account to the students and shows them the items of trading, profit and loss account. Then, the teacher encourages students to ask questions.
Step IV	The teacher gives an illustration of trading, profit and loss account to the students and do the solution step by step while the students are following the teachers' solutions.
Step V	The teacher gives the students room to ask questions.
Step VI	The teacher asks some students to perform some tasks.
Step VII	The teacher asks the entire students to perform hands-on practice individually while the teacher is going round the class.
Step VIII	The teacher collects and marks the students' works.

Step IX                      The teacher concludes the class by reviewing the lesson with students.

### **3.        Sample of Lesson Plan for Guided Discovery Approach**

Subject                :        Financial Accounting

Topic                 :        Final Account

Class                 :        SSII

Duration             :        40 Minutes

#### **Outline of Instructional Contents:**

Introduction: The teacher starts the class by introducing the topic and provides all the necessary background knowledge that will guide the students' discovery.

#### **Behavioral Objectives:**

By the end of the lesson students should be able to:

- i        Defined trading account
- ii       Defined profit and loss account
- iii     Identified the components of trading account
- iv      Outlined the procedure for preparing trading, profit and loss account

#### **Entry Behavioral/Previous Knowledge:**

The students have a knowledge of sole trader and the purpose of preparing final account.

**Teaching Method:** Guided discovery

**Teaching Aids:** Graphical presentation of the format of trading, profit and loss account.

**Presentation:**

Step I	The teacher introduces the topic and explains clearly to the students what they are expected to do.
Step II	The teacher gives task, learning material and appropriate time to the students to work on the solution of the given task.
Step III	The teacher goes round the class and address all the questions the learning groups will ask during their discovery.
Step IV	The teacher asks each learning group to present their findings to the entire class and he gives room to the class to ask questions.
Step V	The teacher concludes the lesson by given more clarification on students' finding, recommends their efforts and encourage the for future task

**4. Sample of Lesson Plan for Conventional Teaching Approach**

Subject : Financial Accounting  
Topic : Final Account  
Class : SSII  
Duration : 40 Minutes

**Outline of Instructional Contents:**

Introduction: The teacher introduces his lesson by arousing the students' interest using the following questions:

- i Who is a sole trader?
- ii What is trading account?
- iii What is profit and loss account?
- iv What are the purpose of preparing final account for the owners of the business?

**Development of Stages:**

- i Definition of trading account
- ii Definition of profit and loss account
- iii Components of trading account
- iv Procedure for preparing trading, profit and loss account

**Behavioral Objectives:**

By the end of the lesson students should be able to:

- i Defined trading account
- ii Defined profit and loss account
- iii Identified the components of trading account
- iv Outlined the procedure for preparing trading, profit and loss account

**Entry Behavioral/Previous Knowledge:**

The students have the knowledge sole trader and the purpose of preparing final account.

**Teaching Method:** Conventional

**Teaching Aids:** Graphical presentation of the format of trading, profit and loss account.

**Presentation:**

Step I	The teacher writes the topic for discussion on the chalkboard.
Step II	The teacher explains the meaning of trading, profit and loss account while the students are listen to the teacher's explanations, and the teacher asks some students to define trading, profit and loss account.
Step III	The teacher mentions and explains the components trading account to the students while the students are listen to the teacher's explanations, and the teacher asks some students to mention the components trading, profit and loss account.
Step IV	The teacher gives and explains to the students the procedures for preparing final account and the teacher asks some students to mention the procedures.
Step V	The teacher gives and solves the short illustration of final account to students while the students are following the teacher's solutions.
Step VI	The teacher summarises the entire lesson while the students are listen to the summary.
Step VII	The teacher asks the following questions to evaluate the students:  i) What is trading, profit and loss account? ii) What are the purpose of preparing final account? iii) What are the components trading account?



## **Appendix H**

### **Interview Protocol**

#### **Cooperative Learning Group**

- (a) Do you enjoy cooperative learning approach? Why?
- (b) Do you feel that you can learn better in financial accounting when working in small learning group (cooperative learning group)? Why?
- (c) In your opinion, as a financial accounting student of senior secondary school, tell me what do you like in cooperative learning approach?

#### **Demonstration Approach Group**

- (a) Do you enjoy demonstration approach? Why?
- (b) Do you feel that you can learn better in financial accounting when you are taught using demonstration approach? Why?
- (c) In your opinion, as a financial accounting student of senior secondary school, tell me what you like in demonstration approach?

#### **Guided Discovery Approach Group**

- (a) Do you enjoy guided discovery approach? Why?
- (b) Do you feel that you can learn better in financial accounting when you are taught using guided discovery? Why?
- (c) In your opinion, as a financial accounting student of senior secondary school, tell me what you like in guided discovery approach?

### **Attitude and Gender**

- (a) In your opinion, how does your confidence in financial accounting influence your achievement?
- (b) In which way the perception of teacher attitude influence your achievement in financial accounting?
- (c) How does the usefulness of financial accounting influence your achievement in financial accounting?
- (d) How does the gender difference influence your achievement in financial accounting?

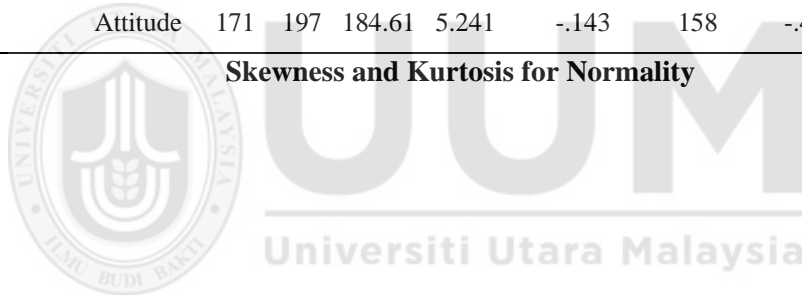


## Appendix I

### Normality Test

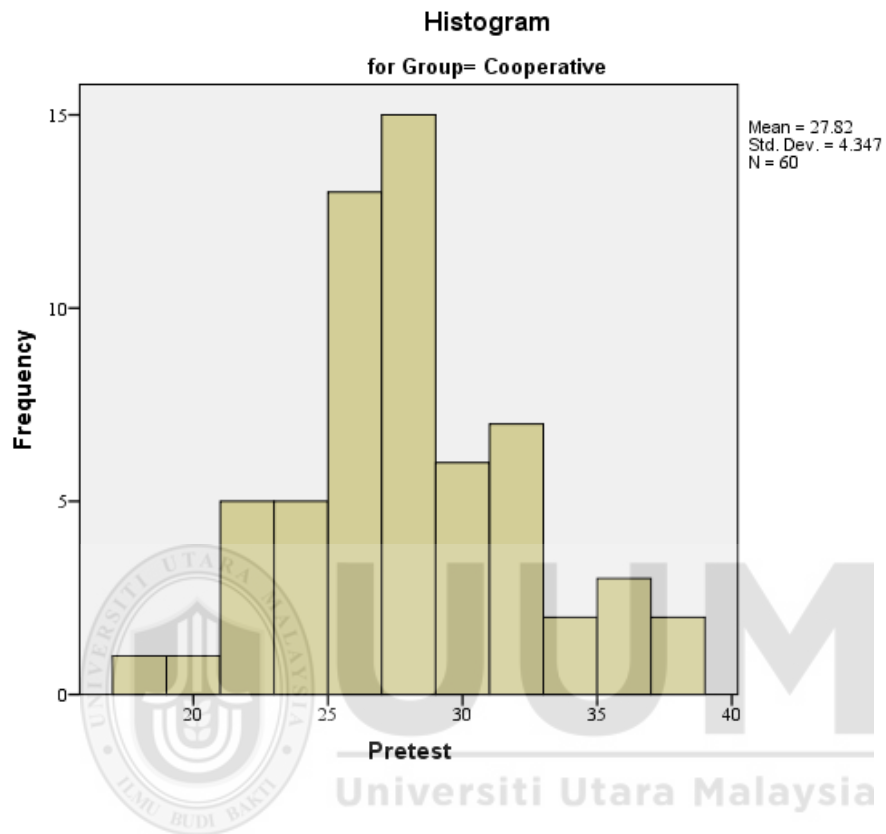
						Skewness		Kurtosis	
Groups	Variables	Min	Max	Mean	SD	Statistic	SE	Statistic	SE
Cooperative	Pre-test	18	38	27.82	4.347	.380	.309	.008	.608
	Post-tests	61	75	67.87	3.239	.099	.309	-.223	.608
Demonstration	Pre-test	15	35	24.77	4.515	.317	.309	-.192	.608
	Post-tests	50	66	58.57	3.456	.034	.309	-.102	.608
Guided Disc.	Pre-test	16	36	25.67	4.483	.349	.309	-.104	.608
	Post-tests	54	68	60.83	3.237	.130	.309	-.213	.608
Control Group	Pre-test	14	34	23.48	4.568	.414	.309	-.167	.608
	Post-tests	38	58	48.13	4.264	.062	.309	-.054	.608
	Attitude	171	197	184.61	5.241	-.143	.158	-.442	.314

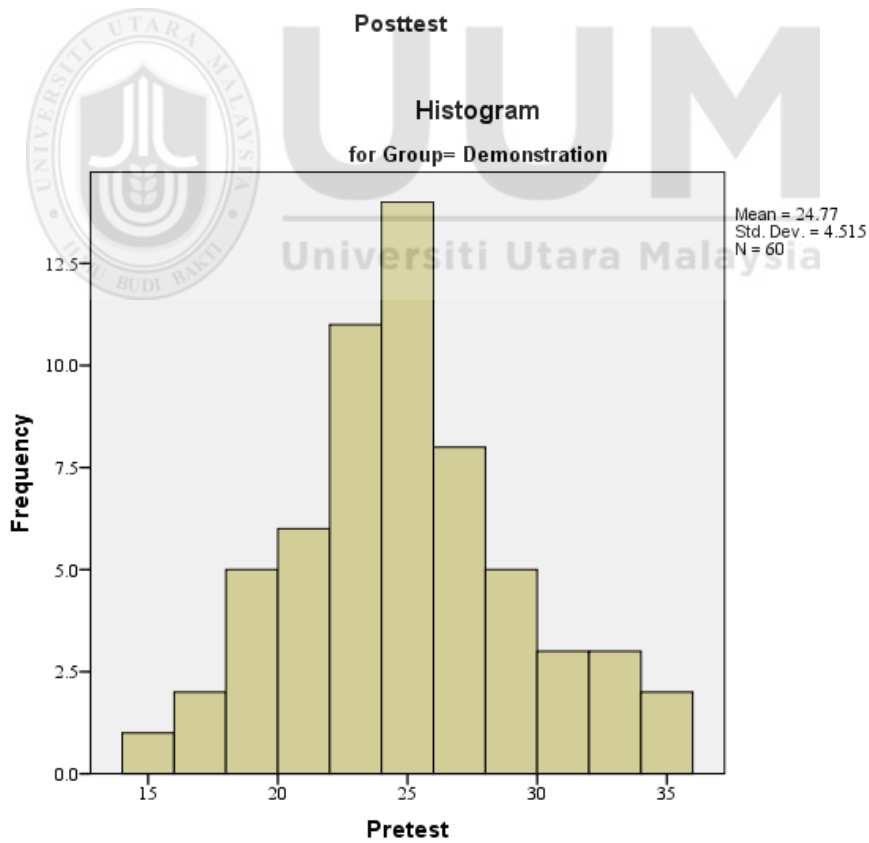
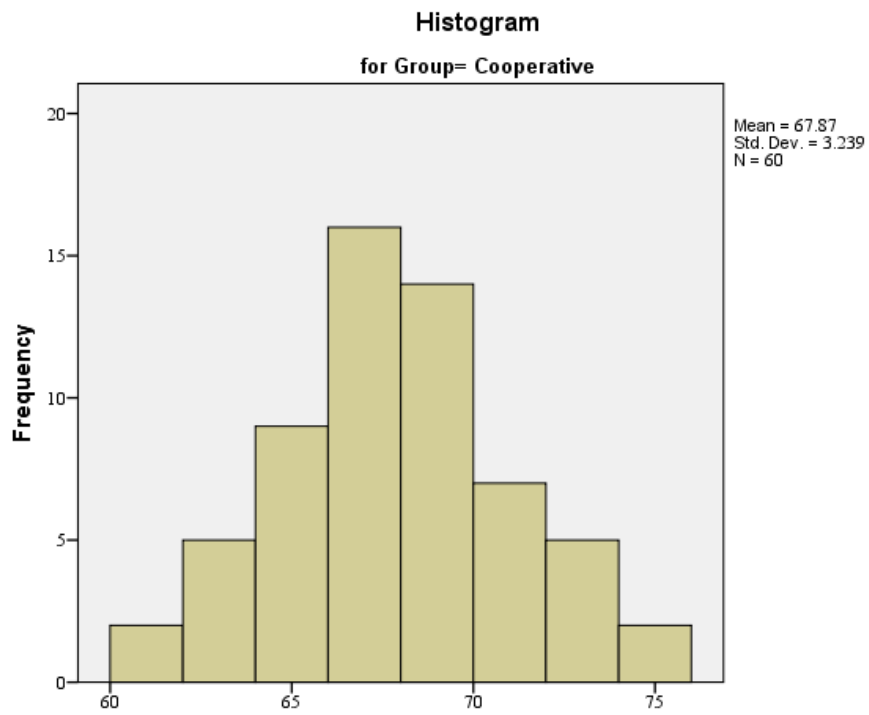
**Skewness and Kurtosis for Normality**

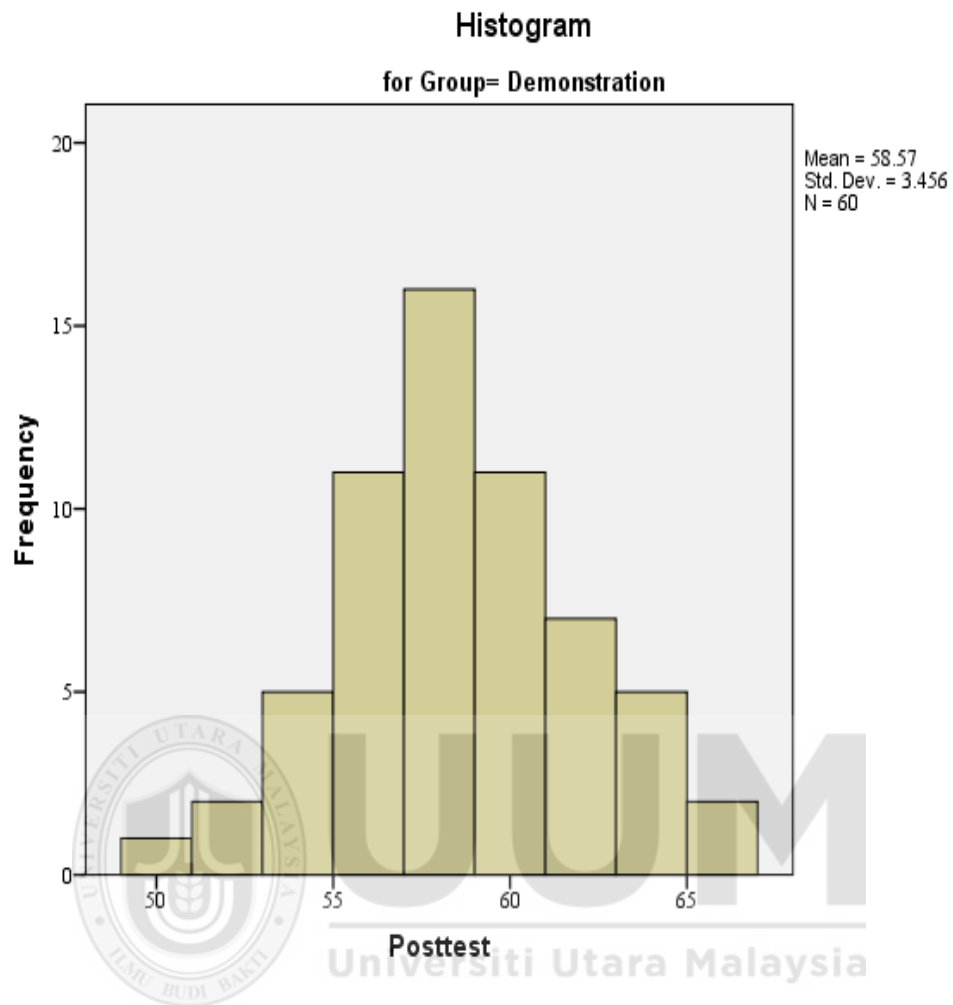


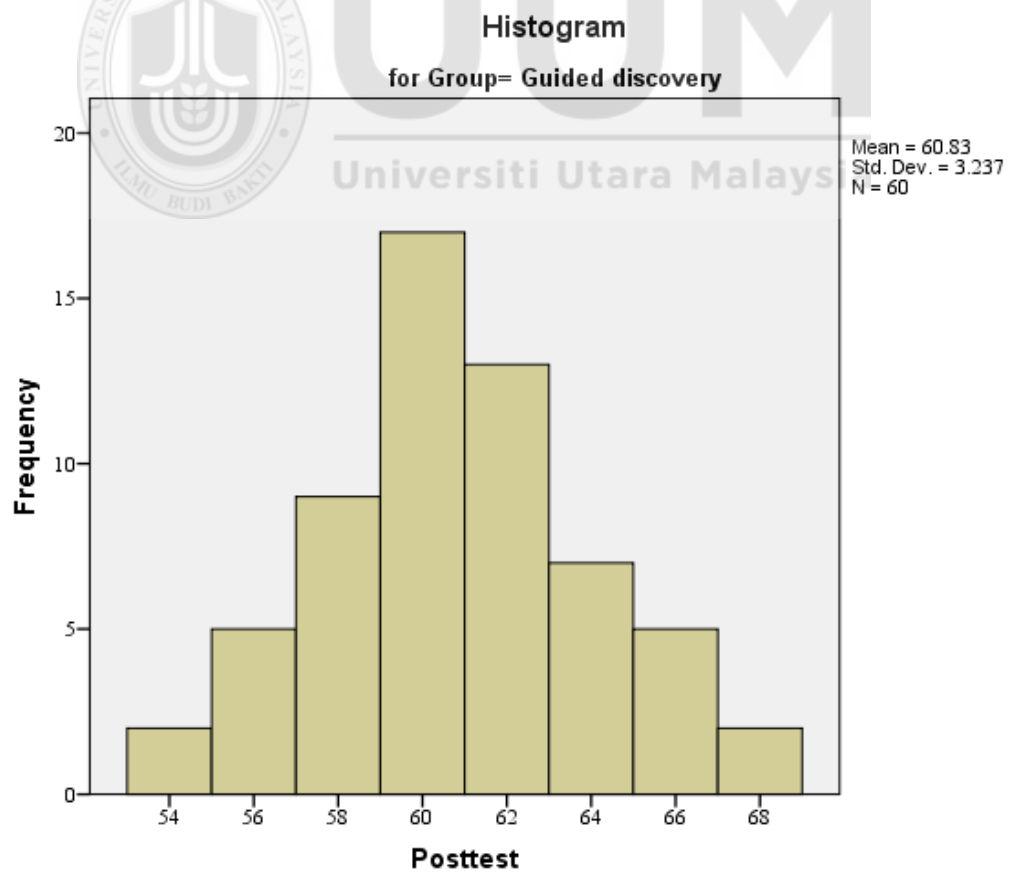
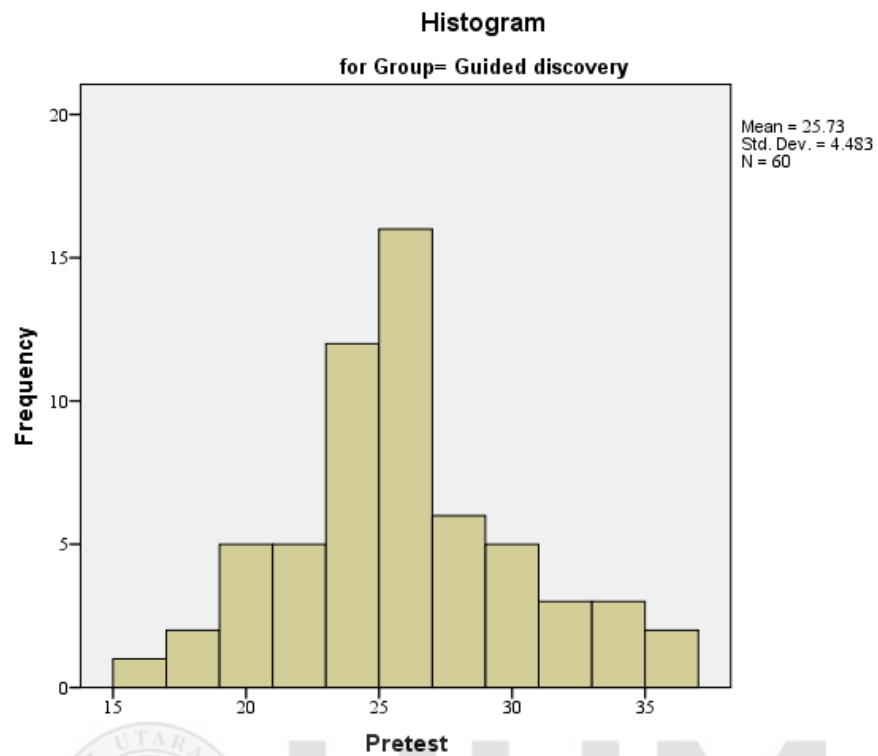
## Appendix J

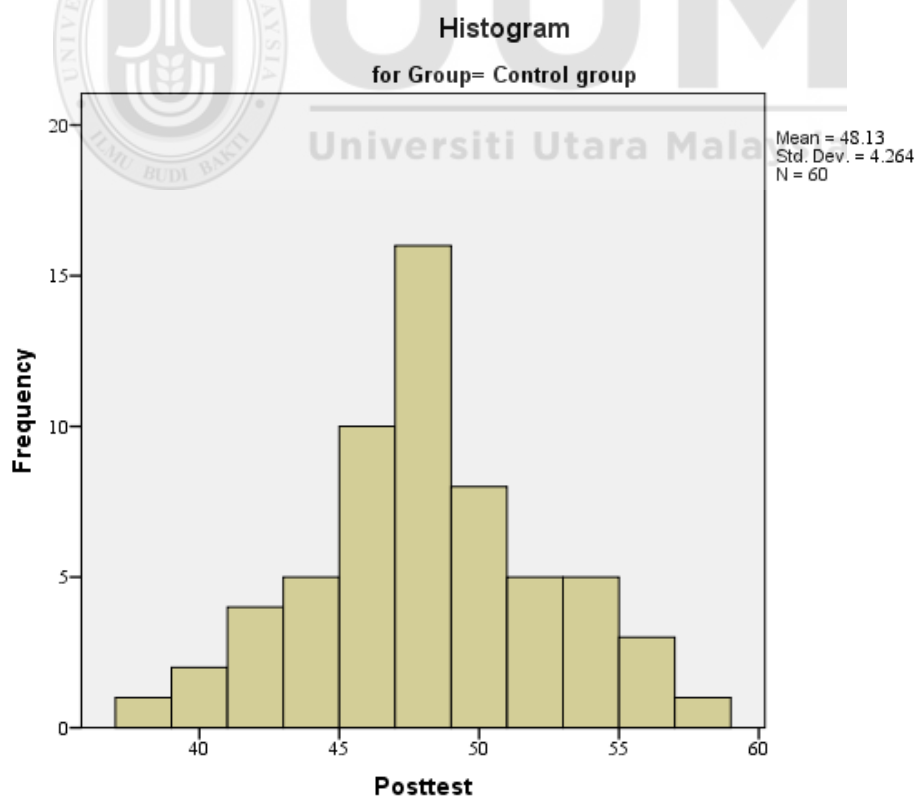
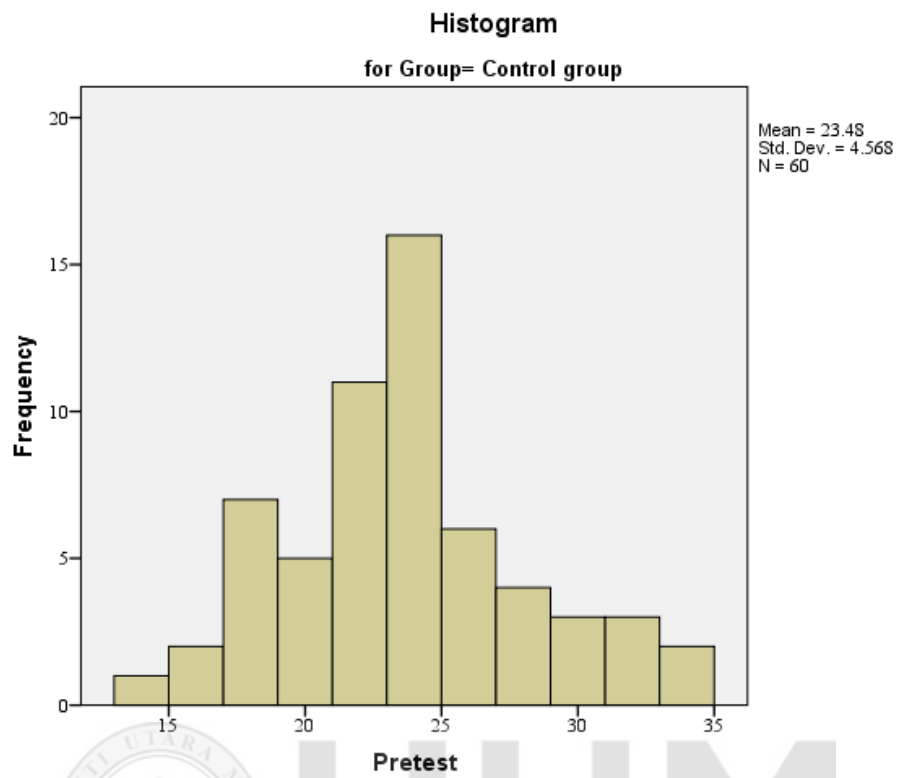
### Histograms for Normality



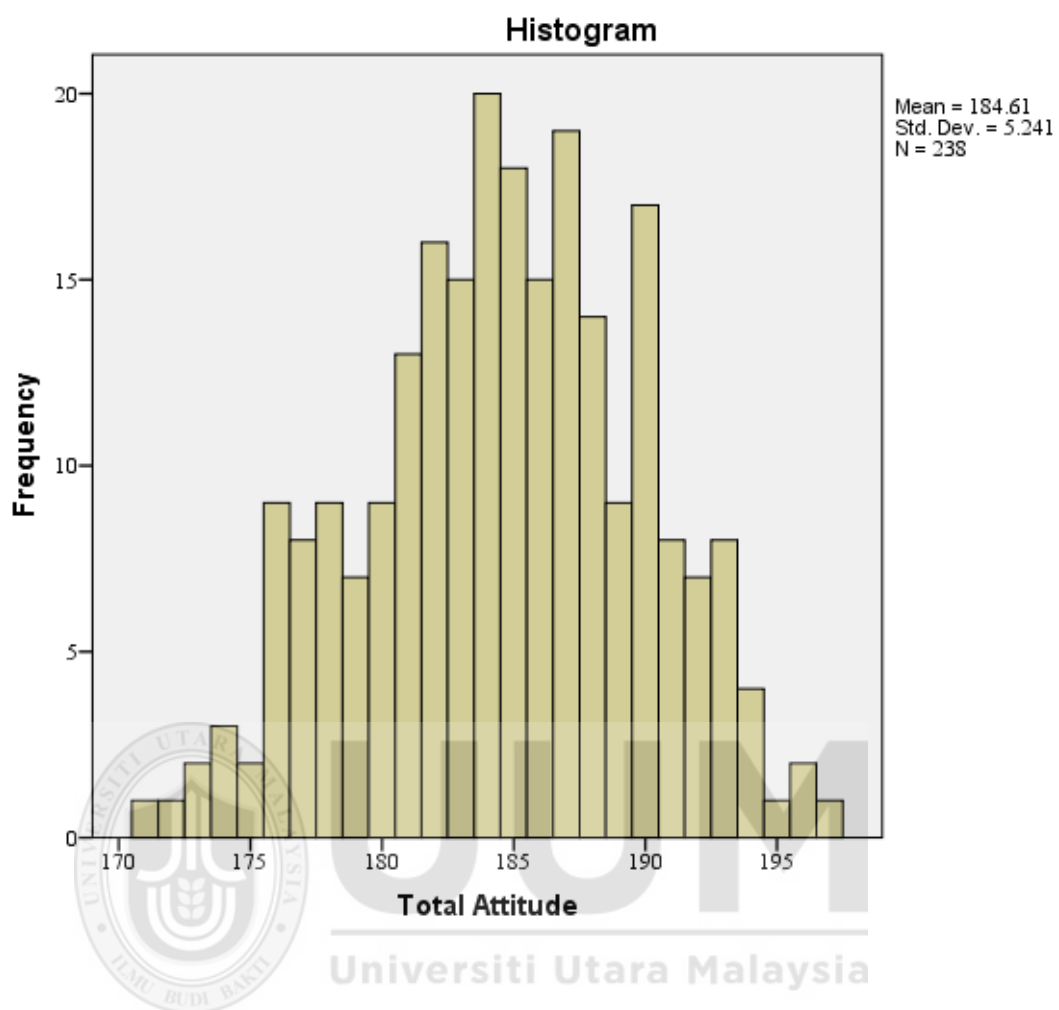












## Appendix K

### Multiple Regression SPSS Output

#### Correlations

		Achievement		
		Test	Total Attitude	Gender
Pearson Correlation	Achievement Test	1.000	.442	.032
	Total Attitude	.442	1.000	-.022
	Gender	.032	-.022	1.000
Sig. (1-tailed)	Achievement Test	.	.000	.498
	Total Attitude	.000	.	.369
	Gender	.498	.369	.
N	Achievement Test	238	238	238
	Total Attitude	238	238	238
	Gender	238	238	238

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442 <sup>a</sup>	.195	.188	7.098

<sup>a</sup>Predictors: (Constant), Gender, Attitude

<sup>b</sup>Dependent Variable: Achievement Test

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2868.844	2	1434.422	28.469	.000 <sup>b</sup>
	Residual	11840.622	235	50.386		
	Total	14709.466	237			

<sup>a</sup>Dependent Variable: Achievement Test

<sup>b</sup>Predictors: (Constant), Gender, Attitude

**Coefficients<sup>a</sup>**

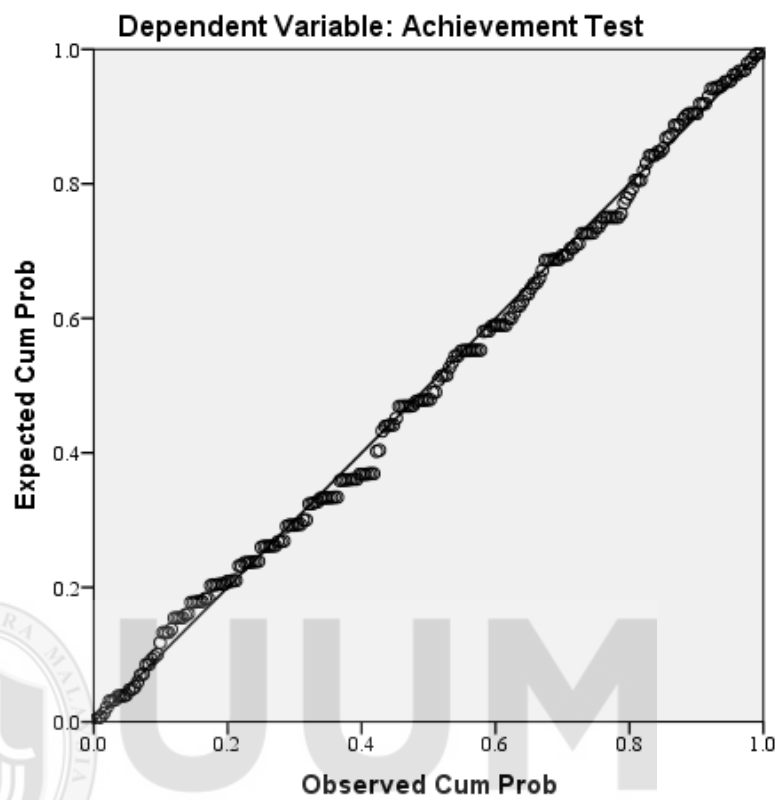
Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-63.920	16.340		-3.912	.000		
Attitude	.664	.088	.442	7.546	.000	1.000	1.000
Gender	.146	.920	.009	.158	.874	1.000	1.000

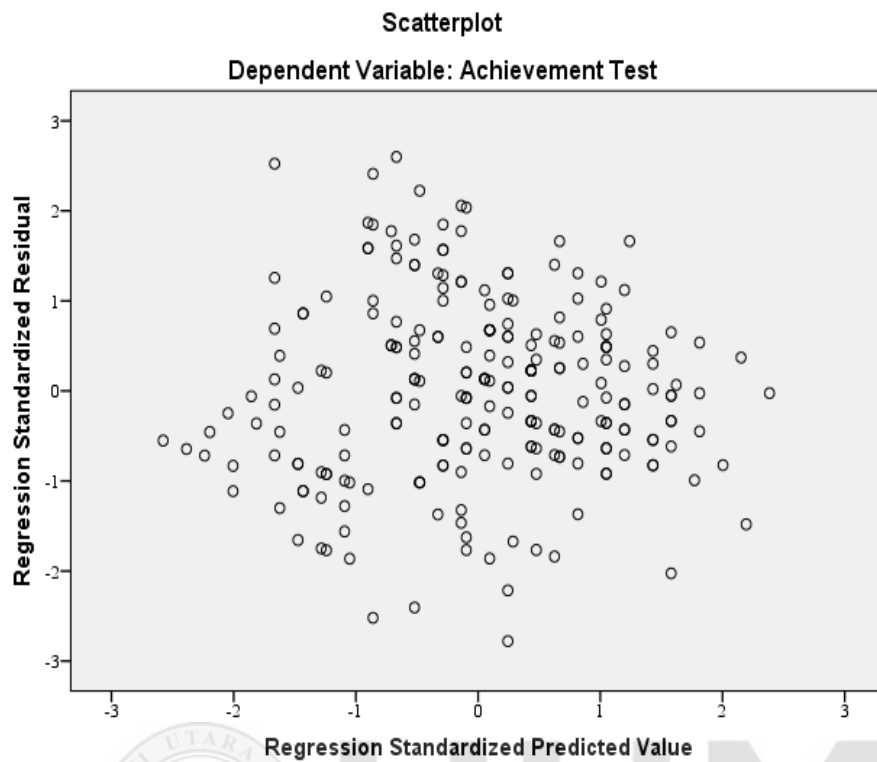
**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	49.91	67.17	58.88	3.479	238
Residual	-19.725	18.449	.000	7.068	238
Std. Predicted Value	-2.577	2.385	.000	1.000	238
Std. Residual	-2.779	2.599	.000	.996	238

- a. Dependent Variable: Achievement Test

**Normal P-P Plot of Regression Standardized Residual**





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## Appendix L

### Computation of Eta Squared

#### Cooperative Group

$$\begin{aligned}
 \text{Eta Squared} &= \frac{t^2}{t^2 + (N_1 + N_2 - 2)} \\
 &= \frac{.635^2}{.635^2 + (30 + 30 - 2)} \\
 &= \frac{.403}{.403 + 58} \\
 &= \frac{.403}{58.403} \\
 &= .007 \\
 &= .7\%
 \end{aligned}$$

#### Demonstration Group

$$\begin{aligned}
 \text{Eta Squared} &= \frac{t^2}{t^2 + (N_1 + N_2 - 2)} \\
 &= \frac{.371^2}{.371^2 + (30 + 30 - 2)} \\
 &= \frac{.138}{.138 + 58} \\
 &= \frac{.138}{58.138} \\
 &= .002 \\
 &= .2\%
 \end{aligned}$$

### Guided Discovery Group

$$\begin{aligned}\text{Eta Squared} &= \frac{t^2}{t^2 + (N1+N2-2)} \\ &= \frac{-.079^2}{-.079^2 + (30+30-2)} \\ &= \frac{.006}{.006 + 58} \\ &= \frac{.006}{58.006} \\ &= .0001 \\ &= .0\%\end{aligned}$$

### Control Group

$$\begin{aligned}\text{Eta Squared} &= \frac{t^2}{t^2 + (N1+N2-2)} \\ &= \frac{-.180^2}{-.180^2 + (30+30-2)} \\ &= \frac{.032}{.032 + 58} \\ &= \frac{.032}{58.032} \\ &= .001 \\ &= .1\%\end{aligned}$$

## Appendix M

### Test for the Interaction Effect

#### Between Cooperative and Control group

Dependent Variable: Post-test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	12868.019 <sup>a</sup>	3	4289.340	983.365	.000
Intercept	5457.407	1	5457.407	1251.153	.000
Group	335.031	1	335.031	76.809	.000
Pre-test	1163.998	1	1163.998	266.856	.000
<b>Group * pre-test</b>	<b>8.914</b>	<b>1</b>	<b>8.914</b>	<b>2.044</b>	<b>.156</b>
Error	505.981	116	4.362		
Total	417054.000	120			
Corrected Total	13374.000	119			

<sup>a</sup>R Squared = .962 (Adjusted R Squared = .961)

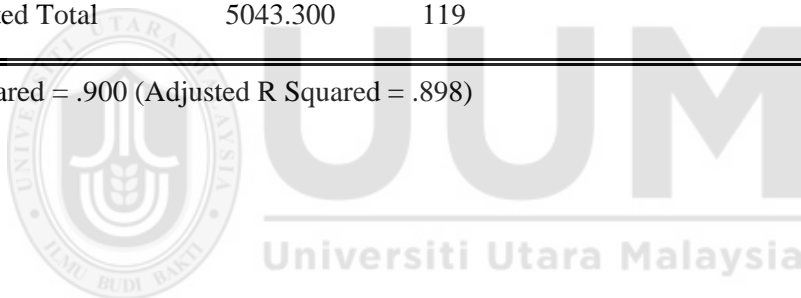


### Between Demonstration and Control group

Dependent Variable: Post-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4540.578 <sup>a</sup>	3	1513.526	349.237	.000
Intercept	5219.006	1	5219.006	1204.254	.000
Group	137.711	1	137.711	31.776	.000
pre-test	1267.979	1	1267.979	292.579	.000
<b>Group * pre-test</b>	<b>4.954</b>	<b>1</b>	<b>4.954</b>	<b>1.143</b>	<b>.287</b>
Error	502.722	116	4.334		
Total	346590.000	120			
Corrected Total	5043.300	119			

<sup>a</sup>R Squared = .900 (Adjusted R Squared = .898)

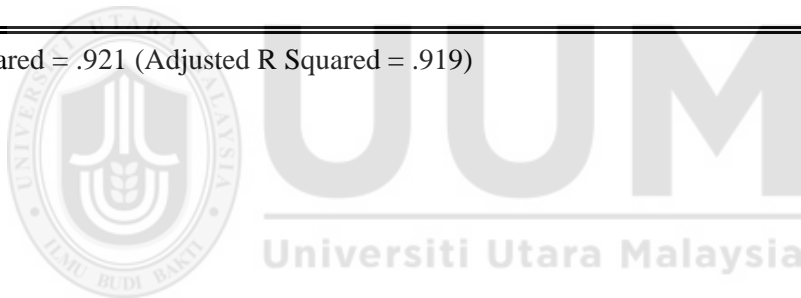


### Between Guided discovery and Control group

Dependent Variable: Post-test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	6011.433 <sup>a</sup>	3	2003.811	448.268	.000
Intercept	5428.066	1	5428.066	1214.300	.000
Group	213.020	1	213.020	47.654	.000
pre-test	1153.641	1	1153.641	258.078	.000
<b>Group * pre-test</b>	<b>13.933</b>	<b>1</b>	<b>13.933</b>	<b>3.117</b>	<b>.080</b>
Error	518.534	116	4.470		
Total	362742.000	120			
Corrected Total	6529.967	119			

<sup>a</sup>R Squared = .921 (Adjusted R Squared = .919)

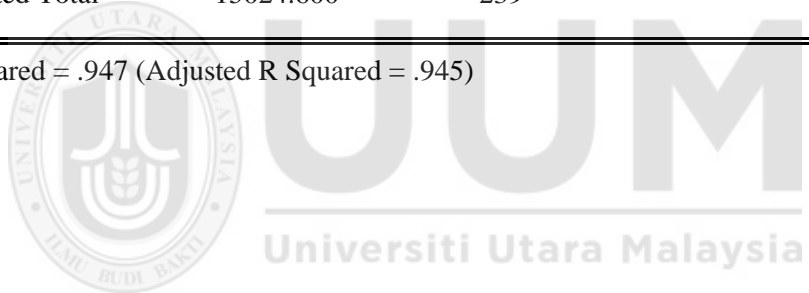


**Between Cooperative, Demonstration Guided discovery and Control group**

Dependent Variable: Post-test

Source	Type III Squares	Sum of df	Mean Square	F	Sig.
Corrected Model	14229.117 <sup>a</sup>	7	2032.731	592.839	.000
Intercept	12171.343	1	12171.343	3549.732	.000
Group	415.493	3	138.498	40.392	.000
pre-test	2186.606	1	2186.606	637.717	.000
<b>Group * pre-test</b>	<b>20.011</b>	<b>3</b>	<b>6.670</b>	<b>1.945</b>	<b>.123</b>
Error	795.483	232	3.429		
Total	846222.000	240			
Corrected Total	15024.600	239			

<sup>a</sup>R Squared = .947 (Adjusted R Squared = .945)



## Appendix N

### Matrix Coding

Participant	Theme	Summary
Participant 1	Cooperative Learning Effect	In cooperative learning, there is group target and we worked together with our teammate to achieve the target and ensure each group member understand the lesson, our teacher also encourages us to work hard and learn together as group regardless of our sex, background and we put up our ideas together to make sure our group is successful and all the member in the group are also successful.
Participant 2	Cooperative Learning Effect	I enjoyed cooperative learning because in this learning style, group members learn from each other and we contribute our share towards our success and the success of our group. Also, I learnt very well when working in small learning group because even if I don't know the answer my teammates help me out of that problem. Therefore, working in group make me feel I can do better because we all give and listen to each other contribution in order to achieve our goal.
Participant 3	Cooperative Learning Effect	I can learn financial accounting better when taught using cooperative learning because our teacher teaches us the lesson and he asked us to work in small group of mixed learning ability to make sure that everyone in the group understand the lesson. Therefore, cooperative learning is enjoyable and exciting because we worked together as group, share our ideas with each other, support each other and inspire each other to learn.

Participant 4	Cooperative Learning Effect	I like cooperative learning because I have good working relationship with my group member and we help one another to solve our problem together and none of the group member is reluctant, every one of us is putting his/her effort to see his/her success as well as the group success. Therefore, I always feel I can learn better using cooperative learning because anything that I cannot achieve alone, my group members help me to achieve it because in cooperative learning we assist and support each other to achieve our learning objective.
Participant 5	Demonstration Method Effect	I can learn financial accounting better when taught using demonstration approach because our teacher explained and showed us clearly how to do something and he give us hands-on practice at the end of the lesson. He carries all the class along, explained the lesson step-by-step with examples and after each step he ask question and he encourage us to ask question.
Participant 6	Demonstration Method Effect	In demonstration approach the teacher make the lesson easily by presenting it step-by-step with simple examples this make me to learn better using demonstration approach because I watch the teachers' demonstration step-by-step, hear all his explanation and perform some task at the end of the lesson and after each lesson our teacher ask us to do exercise and she guide us necessary on how to do the exercise.

Participant 7	Demonstration Method Effect	I enjoyed demonstration method because in this approach the teacher explained each concept verbally and demonstrate it by showing clear examples. Hence, she taught us step-by-step in a way that we can repeat what she has done and she showed to us clearly how to solve each problem and at the end of the lesson she asks us to do some hands-on.
Participant 8	Demonstration Method Effect	In demonstration model, the teacher makes the lesson visible and audible to us and he encourage all the class to ask question at any step in the lesson and give us task to perform after the lesson this enhance our financial accounting performance.
Participant 9	Guided Discovery Effect	Guided discovery approach enables us to give out our ideas and worked on them and when we are stuck at any point our teacher gives us the way out and every group is asked to do the presentation on their discovery and the teacher provide necessary suggestion for each group.
Participant 10	Guided Discovery Effect	In guided discovery approach, we are guided by our teacher during our discovery activities and carry out the activities in group and share our ideas in solving the problem and we make sure that every group member understands the answer to each question before we move to next step. In addition, before starting the discovery activities our teacher gave well explanation to us on what to do and how to do it. After the discovery activities, she asks each group to present their outcomes and she give necessary suggestion and recommendation to each group.

Participant 11	Guided Discovery Effect	In guided discovery class, our teacher guide and encourage us to think very well and provide solution to the problem and he gave us guiding material that facilitate our learning and go round the class and assist each group that need assistance. At the end of the discovery activities he gave us some remarks on the working of each group and motivate the group to put more effort in the future task.
Participant 12	Guided Discovery Effect	I enjoyed guided discovery approach because when we are working on the problem in class, our teacher gave us all the necessary guide whenever the need is arisen and we are solving the problem with peer and guided by our teacher. Then, after the presentation the audience are given chance to ask question where they are not cleared. Also, the teacher adds little explanation for each presentation.
Participant 1	Attitude	My attitude towards financial accounting influences my financial accounting achievement because I always feel I can learn the subject and our teacher inspire me always by telling us financial accounting is not something difficult that we cannot do and it is a simple subject that we can perform well and I believe that when I study financial accounting it will prepare me to be in accounting profession and earn my living.

Participant 2	Attitude	I put in my mind that I can do well in the subject financial accounting because if I study accounting I have position to work in any organization whether private or public and I have good relationship with our financial accounting teacher, he handles us with care and respect everyone in the class.
Participant 5	Attitude	My attitude towards financial accounting influences my achievement, because I attempt to solve problem in financial accounting and if I get any trouble or hook anywhere I look for assistance in order to get a way out and in every accounting lesson our financial accounting teacher encourage us to put more effort in order to perform better in the subject. That also have influence in my achievement financial accounting. Above all, the subject financial accounting will be important in my life because if graduate in accounting area I can work as accountant, cashier or any financial controller. That also make me to work hard in the subject.
Participant 8	Attitude	I don't have any phobia when I am solving question or problem in financial accounting because our teacher always tells us about the career related to financial accounting and advises us to work hard and succeed in our study. Therefore, the knowledge of financial accounting will help in my future endeavor. So, I concentrated very in the subject financial accounting.



Participant 11	Attitude	I never thought I cannot learn financial accounting because of the difficulty and if cannot solve a problem in financial accounting I would not be discourage I look for helping hand. Our teacher also motivates and encourages us even if you make any mistake she would tell you that you have tried and she would ask you to keep it up and do more later.
Participant 12	Attitude	I like financial accounting because most of my friends are going to art class but I remain in the commercial class that make me to have feelings always that I can do better in financial accounting and our teacher is a good mentor, she always wants to see us we progress in our learning especial in financial accounting subject and she gives us necessary guide on how to achieve better in the subject. Moreover, in almost all working places both the private and public, accounting section has a specific role, that shows accounting is very useful and I develop more interest on it.
Participant 1	Gender	Both male and female participate equally in our group. I don't think gender would influence my achievement.
Participant 2	Gender	Gender difference has no influence in my financial accounting achievement.
Participant 5	Gender	Gender is not a factor that influence our achievement in demonstration method class because both sex are performing their best.
Participant 8	Gender	Gender difference is not an issue regarding our achievement because both sex are working hard and performing well.

Participant 11	Gender	Gender difference did not influence our achievement because it seen in our class that there is equality of performance between the gender.
Participant 12	Gender	I don't believe gender difference has influence in our financial accounting achievement.

